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AN EXPLORATORY STUDY OF
NEURO LINGUISTIC PROGRAMMING
AND COMMUNICATION ANXIETY

by

Lois M. Brunner

December 1993

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An Exploratory Study of
Neuro Linguistic Programming
and Communication Anxiety

by

Lois M. Brunner
B.S., Naval Postgraduate School

Submitted in partial fulfillment
of the requirements for the degree of

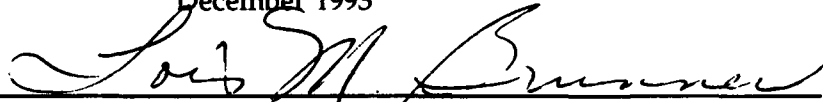
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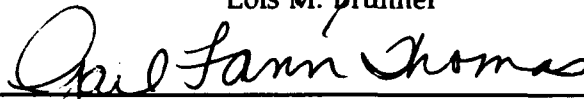
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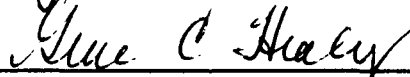


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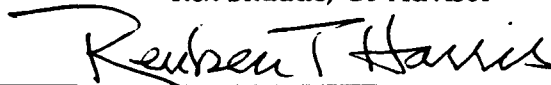
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The before and after training presentations for each individual volunteer were evaluated against criteria for communications anxiety and analyzed to determine if there was a noticeable reduction of anxiety after the training. Anxiety was reduced in all of the volunteers in this study.

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I. INTRODUCTION

This thesis is an exploration of Neuro-Linguistic Programming (NLP), its capabilities, and some of its applicability. This study will explore the possibility of using one or more of the NLP techniques to ameliorate the problem of anxiety of some individuals before and while giving an oral presentation to a group.

Communication Apprehension (CA) is the subject of research by the professional and academic communications community. Research indicates that approximately 60% of public speakers experience some anxiety on the same day before a speaking engagement (Smeltzer & Waltman, 1984). A nationwide survey of American adults found that the most frequently reported fear experienced was that of speaking in public (McCroskey, 1977). Similarly, when 3000 Americans were asked "What are you most afraid of?" 42% said "speaking before a group." This outweighed fear of heights (32%), insects (22%), sickness (19%), and death (19%) (Mayer, 1989).

Oral communication skills are important for successful DoD professionals. Recent empirical research has linked generalized communication ability to subjective appraisals of managerial performance (Bedar, 1982, p 51-76; Caldwell & O'Reilly, 1982, p 124-127) and managerial career advancement

(Sypher & Sypher, 1983, p 207-304; Luthans, Rosenkrantz, & Hennessey, 1985, p 255-270; Sypher & Zorn, 1986, p 420-431).

Different techniques have been tested to try to reduce this apprehension to enable individuals to better perform in their careers. Chapter II of this thesis will review current work in the field of Communication, Cognition, and Anxiety or Communication Apprehension (CA).

Chapter III will review some of the best known literature in the field of NLP and will show the development of this field of study. The basic principles of NLP are presented in brief with some indication of the breadth of applications of this rapidly expanding field of knowledge.

Chapter IV provides an analysis of the data collected during this exploratory study.

Chapter V includes a summary, lessons learned and recommendations for further research.

A. RESEARCH QUESTION

The primary question this exploratory study addresses is: How might NLP techniques be used to reduce the anxiety that surrounds some individuals when they are making an oral briefing before a group?

B. METHOD

Seventeen students from the Naval Postgraduate School volunteered to participate in this study. These 17 students

were enrolled in a Managerial Communications course (MN3333) during the summer of 1993.

At the beginning of the course, the students who were in MN3333 were given an assignment to make a three minute informational briefing on a topic of their choice before their peers. This three minute presentation was recorded on VHS video tape for each student. Prior to the presentation, the 17 student volunteers were given two questionnaires to complete immediately after their presentation.

The first questionnaire measured state communication apprehension using the Communication Anxiety Inventory - Form State. (Booth-Butterfield & Gould, 1986) (See Appendix A) The second questionnaire, designed for this study, asked the participants three questions about their past experiences in giving oral presentations. Ten questions were written to solicit information about the feelings of anxiety that they experienced while giving their three minute briefing as well as their preparation before the brief. (See Appendix B)

On 2 August 1993, a memo was sent to the volunteers announcing the time, date and location of the training session of the NLP technique to ameliorate the oral anxiety. (See Appendix C)

On August 10, two training sessions were held. Dr. Gene Healy, a Master Practitioner of NLP was the instructor in

teaching the technique to the student volunteers. The morning section had 7 volunteers and the afternoon section had 10 volunteers. These two training sessions were video taped for later review. Professor Emeritus Rex Shudde, an NLP Practitioner, also observed the training session.

Dr. Healy gave a one hour lecture on the general principles and then taught the technique to the class of volunteers. The students were then asked to come one-by-one to the front of the room where each was given personal training in the technique. The technique was repeated until their personal convincer strategy (number of times they needed to do something until they felt that they knew it) had been filled. This sequence of activities was repeated in the afternoon session.

Three weeks after the first oral presentation, the students were to give a second presentation on the subject of Total Quality Leadership / Total Quality Management (TQL/TQM) to last five minutes and would again be recorded on each student's video tape.

In the next three class sessions, the second oral presentations were given. After the students had completed their presentation, the volunteers were given a second questionnaire to fill out inquiring about their subjective feelings of anxiety before and during this second presentation. (See Appendix D)

Following this second briefing, a summary of the technique was written and distributed to each of the volunteers. (See Appendix E)

C. LIMITATIONS OF STUDY

This is the first time an exploratory study of oral communication apprehension and NLP was conducted with student volunteers in a Managerial Communication course at the Naval Postgraduate School. Thus, this study was designed to be exploratory and was not a controlled experiment.

The use of video cameras for recording and subsequent analysis was also exploratory.

II. COMMUNICATION ANXIETY

A. DEFINITION

Communication Apprehension (CA) is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" as stated by McCroskey. The use of the term communication apprehension appears to be an outgrowth of the study of this phenomenon by speech communication specialists. An individual's level of CA probably is the single best predictor of the person's willingness to communicate. The internal effects of CA is the focus of extensive research, both the causes of CA and the effects of CA on the individual. Those who research communication apprehension generally specify two types of CA: Trait CA and State CA.

Trait communication apprehension or anxiety has been defined as a relatively enduring, personality-type, orientation toward a given mode of communication across a wide variety of encounters. Trait communication anxiety scores for an individual would be expected to be consistent over time and context, barring an intervention program.

State communication apprehension or anxiety is specific to the immediate oral presentation scenario that the individual is experiencing "here-and-now." It is the fear felt in a situation where others are observing and

evaluating the communication and is sometimes called "stage fright." It is important to note that state communication anxiety is a normal response to an intimidating situation by normal people, and is not pathological. (see Williams, 1991, p 15-6)

It has been argued that in communication anxiety, trait or state characteristics may reflect a continuum rather than isolated dichotomies and that trait anxiety may be formed by an accumulation of state anxiety experiences. (see Williams, 1991, p 17)

Further investigation into communication apprehension brings into question its effect on an individual's willingness to communicate.

B. WILLINGNESS TO COMMUNICATE

Of primary concern is the way an individual perceives her/his own communication competence. A low self esteem or low communication competence, or introversion and other similar personality characteristics all correlate to low Willingness To Communicate (WTC).

According to McCroskey, CA is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons." "The only effect of CA that is predicted to be universal across both individuals and type of CA is an internally experienced feeling of discomfort" (see McCroskey, 1991). Since CA is

experienced internally, the only potentially valid indicant of CA is the individual's report of that experience. Therefore careful paper-and-pencil measures or interviews given in an environment free of negative repercussions, provide the only valid measures of CA.

WTC is negatively correlated with a person's CA and to understand the relationship between CA and WTC, and the important distinctions between them involves distinguishing between the internal and the external effects of CA.

There is both verbal and nonverbal communications. Nonverbal communications is subject to less volitional control. One of the cardinal tenants of contemporary communication theory is that "one cannot not-communicate" in the presence of another or oneself. An individual cannot avoid communication but may choose what message they will send. McCroskey claims that CA is not a behavioral construct but is a cognitive one. CA may be reduced either by methods to reduce the physiological activation (e.g., systemic desensitization) or by changing the labeling (e.g., cognitive restructuring).

Avoidance of communication is typical of low level WTC. Nonverbal communication cannot be avoided but can be minimal beyond "I do not want to communicate." McCroskey is looking at CA and WTC in general and not limiting the area to making

an oral brief or presentation before a group as a part of one's student or professional career.

The three basic research models have been used 1) direct observation of amount of communication with assessment of outcomes, 2) measurement of a predisposition (such as CA) which is presumed to be related to WTC, allowing communication to occur, and assessing outcomes, and 3) simulation of talkativeness variation with assessment of outcomes.

Regardless of the research model used, the results of this research have been remarkably consistent. The general conclusion that reduced WTC results in an individual being less effective in communication and generating negative perceptions of him/her self in the minds of others involved in the communication.

C. TREATMENT FOR COMMUNICATION APPREHENSION

Some methods of treatment or therapy for CA as discussed in the literature are Rational Emotive Therapy, Desensitization which includes skill training, Cognitive restructuring or changing labels, and Neuro-Linguistic Programming. NLP will be discussed at length in Chapter III.

1. Rational Emotive Therapy

Albert Ellis, Ph.D. in clinical psychology is President of the Institute of Rational Emotive Therapy (RET). Albert Ellis defines RET as a theory of personality

and a method of psychotherapy. In an interview about Communication Apprehension, he stated that about 20% of the college student population had CA and that from the RET point of view, the social anxiety, shyness, or speech anxiety largely stems from an irrational belief.

An example of an irrational belief is, "I have to communicate well and make a good impression on others." An example of a rational or sensible belief would be "I'd like to communicate well, but if I don't, I don't!" If they stayed with the rational idea of preference, they might not become a great speaker, but they might do much better.

This method uses the A. B. C. D. E. with A as the Activating event such as an upcoming speech; B is their irrational belief about the event; C is the upsetting and emotional consequences; D is the disputing of the irrational ideas; and E is a new cognitive effect or conclusion.

The irrational idea according to Ellis is an overt or covert "must" or "should" and changing these to "prefer" and realizing that I do not have to be perfect to accomplish what I want, that absolutes such as perfection is not necessary and actually inhibits the accomplishment of what I want. By changing the belief B, the emotional consequences C also change and may produce new or modified behavior E that will improve the results of performing A (the upcoming speech). RET uses reasoning to develop more rational,

reasonable beliefs about perceived consequences and students may be able to give up their irrational beliefs (CA) and achieve increased self-confidence and effective communication.

2. Desensitization

Desensitization is the most common therapy and typically consists of creating an anxiety hierarchy for the individual, and then providing relaxation training to deal with the areas of anxiety. It has been found that the treatment alone, although producing measurable results, was less successful than a treatment conducted in conjunction with skills training.

3. Skills Training

One of the most effective treatments in the early 1980's seems to be the presentation of a skills training program in sufficient comprehensiveness and duration to accomplish both the reduction of all aspects of anxiety and speaking incompetence. (see Hayes and Marshall, 1984, p 519-533). The greater the skills, the less the incompetence, the less the anxiety, the more effective the speaker is the rationale.

These skills have been studied and are well known. Such skill training programs are currently used successfully with the main drawback of the extensive duration. This is

the basis for the search for a more effective or at least a much shorter duration yet effective treatment program.

D. RELATED STUDIES OF COMMUNICATION APPREHENSION

McCroskey notes that five theoretical propositions have been developed based on empirical studies concerning oral communication apprehension:

1. People vary in the degree to which they are apprehensive. Subject's scores on the instruments that measure apprehension consistently form normal distributions. These normal distributions have been found in studies involving college students, senior citizens, school teachers and Federal government employees (McCroskey, 1978, p 193-198).

2. People with high oral communication apprehension seek to avoid oral communication. Research shows that high communication apprehensive choose housing accommodations that require less interaction. In classrooms, students select seats that require less interaction. High communication apprehensive students generally prefer large lecture classes over small classes and they typically avoid sitting in the front or center of the typical classroom.

3. People with high oral apprehension engage in less oral communication than do less orally apprehensive individuals. McCroskey conducted six studies that showed

negative correlations between high oral apprehension and amount of oral communication.

4. When people with high oral communication apprehension do communicate, their oral communication behaviors differ from those people who are less apprehensive. Studies show that comments of high apprehensive are far less relevant to the topic than the comments of other individuals. High CA individuals show more tension in small group discussions than persons with lower CA. Persons with high CA tend to use more interogatives such as "you know?, you see?, and okay?" CAs in brainstorming sessions have been found to express few original ideas. (McCroksey, 1978, p 193-198).

5. As a result of their oral communications behavior, high oral communication apprehensive are perceived less positively by others than are less apprehensive people. Research shows that high apprehensive were seen as less credible and interpersonally attractive than their peers, both by low communication apprehensive and other high communication apprehensive. The perceived leadership ability of high communication apprehensive was found to be lower than that of individuals with lower CA scores. High CAs were found less likely to be selected as opinion leaders, or even as friends than the norm. (McCroskey, 1978)

Thomas B. Williams, who wrote his Master's Thesis in 1991 on Effects of Types of Cognitions on Performance in Oral Briefings, showed that the two types of communication apprehension (trait and state) were strongly correlated. Williams research, conducted with NPS students, showed no significant correlation between either number of hours spent preparing or number of practice repetitions and performance. Williams found strong empirical support for the idea that individual's interpretations of oral briefing situations do create functional "mind sets" or dysfunctional anxiety, and that this anxiety does impact performance via CA.

The above is an example of the professional literature that considers communication as impacted by apprehension of oral presentations or speeches. Several aspects of the problem and some methods of alleviating the negative affect of communication anxiety have been explored. Research into this problem area and possible treatments or methods to reduce the impact of communication apprehension continue. Neuro-Linguistic Programming is another set of techniques that are showing promise as a treatment modality to reduce the communication anxiety and will be explored in Chapter III.

III NEURO-LINGUISTIC PROGRAMMING

Trying to describe NLP in a logical sequence is like trying to describe a hologram by pulling it apart bit by bit, but each part of a hologram contains all of it. (O'Connor, 1990, p 191)

This chapter will give a historic perspective to the development of Neuro-Linguistic Programming from its beginnings at the University of California at Santa Cruz (UCSC), in the early 1970's era until its recent widespread developments. This chapter will also discuss the major relevant concepts of NLP.

We can start with a definition of Neuro-Linguistic Programming and its application.

"Neuro" stands for the fundamental tenet that all behavior is the result of neurological processes. "Linguistic" indicates that neural processes are represented, ordered, and sequenced into models and strategies through language and communication systems. "Programming" refers to the process of organizing the components of a system to achieve a specific outcome. (Dilts, 1983, p 3)

NLP is not a linear system but rather a global system of closely interrelated aspects. It has been used in many areas such as psychotherapy, education, management, sales, personal change and growth, negotiations, communications and thinking strategies e.g., spelling, writing, music memory, accelerated learning. Some of the techniques can be used to relieve anxiety, fear or more serious phobias.

A. HISTORY

Neuro-Linguistic Programming (NLP) was co-founded by Richard Bandler and John Grinder at the University of California at Santa Cruz around 1972. Prior to NLP's development, Richard Bandler had first been a student of Math, Computers, and Linguistics and later Gestalt Psychology. John Grinder was an Assistant Professor of Linguistics and had co-authored a book considered a classic in the field of linguistic methodology with S.A. Elgin in 1973.

Bandler was aware of the existence of rules or structure imbedded in the many fields of his study one of which was linguistics.

Although it is important to appreciate the individual nature of perceived reality, it is equally important to identify patterns of behavior exhibited by individuals and groups..... During interactions involved in communication, certain consistencies of behavior become evident. Just as the language we use is structured by semantics and grammar, so does the rich and varied nonlinguistic behavior of humans appear to follow a highly structured order. We are, however, confronted with the same dilemma that has long faced linguists. The native speaker of any language forms his speech without any necessary awareness of the rules being used. Likewise, the rules of nonlinguistic behavior are veiled by their very nature: they are unconscious processes. (Lewis, 1982, p 5).

Richard Bandler had an appreciation of rule-governed behavior but wanted some help to organize a working model of this rule-governed behavior and so contacted John Grinder.

According to Daniel Goleman in his article "People Who Read People", 1979, Bandler had been trying to build models of effective therapy and invited Grinder to join him in the effort. His challenge to Grinder was to do for therapy what linguists did for language: transform it into a working model. Grinder brought more to the task than the analytic skills of a linguist. He was a former Green Beret with undercover assignments that required him to cultivate the ability to mimic the body language as well as the speaking patterns of people from different regions. Says Grinder, "When I learn a language, I learn it in my body, in the scanning patterns of my eyes, in the way I touch and walk. I learn the whole spoken culture."

Together, Bandler and Grinder spent many months studying therapeutic "wizards," some of the most gifted therapists known: people such as Milton H. Erickson with his hypnotherapy, Virginia Satir with her counselling therapy techniques, and Fritz Perls with his gestalt therapy. These talented communicators were studied in person, on film, and on video and audio tape.

Additionally, several of the basic foundations for NLP were the more humanistic psychological concepts along with the work on right/left brain, the slightly older but nevertheless still very valid concepts of Edward Hall and the linguistics of Benjamin Whorf and Noam Chomsky. Alfred

Korzi's 1933 classic Science and Sanity has seminal concepts such as "The Map is not the Territory". "Important characteristics of maps should be noted. A map is not the territory it represents, but, if correct, it has a similar structure to the territory, which accounts for its usefulness." The Territory in this case is reality or the universe or world, the map is your internal model of reality or the universe or the world, the actual territory is not in your mind, only your map of it. Our senses pick up whatever input they are biologically capable of as a signal to the brain. This signal is filtered through the deletion, distortions and generalization that originate from your internal attitudes, values, beliefs, meta programs, decisions, memories, language, time/space, matter/energy considerations to build an internal representation of the sensory input. We have to "make sense" of the new information and it must fit into our model of the world before we can accept it. This model is only a map of reality and not reality itself.

With all of this background and their observations and studies, Grinder and Bandler arrived at the basic concepts of NLP; the two acknowledge that the skills described in their models are borrowed from many others, and view their role simply as describing and teaching these techniques. Many believe they have done and are still doing much more

than that and are actively developing and expanding NLP, its applications and techniques.

As Bandler and Grinder continued their studies, their work aroused interest in some others resulting in a small experimental-research therapy group. Among the members of this group were Robert Dilts, Leslie Cameron (later Cameron-Bandler), Frank Pucelik, Byron Lewis, Judith DeLozier, Steve Andreas, Connirae Andreas, and others. They brought a variety of different backgrounds to this group with a common desire to learn just what the NLP techniques could do. They wanted to bring to the conscious mind these techniques to be learned and then later to be taught. Each one bringing their own individual background and therefore their own point of view to contribute to the overall understanding. Gregory Bateson described NLP as the first systematic approach to learning to learn; it is the first applied epistemology.

B. CONCEPTS

This section will discuss some of the basic concepts of NLP. The order of these concepts is a building block function of needing to understand an earlier concept to understand the next one. Each of these concepts is necessary to understand NLP and each concept is interrelated to every other concept.

1. Consciousness

Consciousness is a concept that often has a multiplicity of meanings. In NLP, the phenomenon of consciousness is specified as anything in present moment awareness. It is obvious that consciousness is a limited phenomenon: one cannot attend to all incoming sensory experience at once, although s/he responds to it automatically. An individual's primary representational system will have the highest signal, or be "most conscious" for that person unless the responses have become automatic. The primary representational system is that sensory input which is the strongest for the individual. For most people this would be either the visual or auditory input and for others, the kinesthetic input.

The unconscious mind has many life sustaining functions including the organizing and storing of memories. The unconscious mind perceives and stores all of the sensory input. One of the highest priorities of the unconscious mind is the preservation of the "self" however the "self" may be defined.

Our "unconscious mind" takes care of all the life giving processes of our body, all that we might notice, but do not in the present moment. Our unconscious initiates a behavioral response, such as driving a car or riding a bicycle or swallowing our food, even breathing. Our

unconscious mind has our best interest as its dominant basis for action whether physical, mental, emotional or spiritual. We can communicate with our unconscious mind and our unconscious mind communicates with us such as in dreams or intuition and other ways. We or us being the conscious mind.

As man we have some instincts, which some believe reside in the unconscious mind, and the number one instinct for us is that of self survival, self protection or self defense. The definition of "self" may vary for each of us, sometimes depending on the context of the threat. Usually we react to the threat or emergency without any conscious decision to do so. We might consciously consider "what is the best thing to do with what is available now for this situation" even this might be done subconsciously. We are reacting, not consciously deciding to act or not, and if so how. Our unconscious mind initiates the action or lack thereof (sometimes freezing and pretending that you are not there or not visible is the reaction). Our instincts obviously affect our behavior and its substructure. Some believe our instincts are "hard-wired" into our unconscious minds and we have little control over our instincts. "Fight or Flight" is a familiar instinct.

In addition to our instincts, we have value systems. A hierarchy of values means that we rank that which is important to us from most important to least important. Some

things are more important to us than other things, e.g., being honest may be more important than winning. Values determine our behavior.

Values are largely unconscious, and at the deepest level they drive a person's behavior. First, they provide the push or the kinesthetic drive as prior motivation for our actions. Second, they serve as after the fact evaluation criteria, or judgment about our actions. Values are the way we judge good and bad, right and wrong, appropriateness and inappropriateness. Values are acquired and not "hard-wired". It is easier to influence or change our values and especially to become conscious of them and then to change them if we choose to do so. NLP is effective in assisting gaining this awareness and changing if desired by the individual.

Some attempt has been made to study the "altered states of consciousness" and differentiate between that and a "state of awareness". Suggestion and Suggestibility have long been key concepts in hypnosis and other therapeutic uses of altered states of consciousness. Hypnosis is a very valuable tool that is used by NLP to help make the changes that are desired by the client and the practitioner or therapist. The desire to change the dysfunctional or unpleasant way we are now to a way that is more functional or pleasant and yet ecological with our total being is

usually the goal of personal growth. The reduction of CA that is inhibiting our ability to give an oral presentation before a group and thereby improve our ability to communicate is the change that is desired here. Hypnosis can help to explore our values and the intention behind our behavior and then to change them if they are buried too deeply in our unconscious mind to easily reach them consciously.

The following are just a few of the tools and techniques used in NLP to assist in modifying behavior and removing some limitations to permit expanded or enhanced capabilities toward excellence.

Metaphor is probably the most elegant tool, for assisting someone to change. Metaphor is defined as "a figure of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them." Another way of putting that is indirect communication by a story or figure of speech implying a comparison. In NLP metaphor covers similes, parables and allegories. NLP can be used in a wide range of communications including with your own unconscious.

Preferred Thinking Style refers to taking in and responding to sensory information where each of us has a preferred way of thinking about it. We have a way of

organizing the sensory information, regardless of whether it is visual, auditory or kinesthetic. For most people, information is usually consciously processed in a linear mode, such serial processing refers to organizing information into detailed, step-by-step sequences that are thorough with "everything in its place."

In addition there are individuals who think in a global gestalt rather than linear or even multi-linear sequences. Many individuals will use one preferred method most of the time and occasionally will use other modes as the situation merits.

2. Patterns of Rule Governed Behavior

A "simple" example of rule governed behavior is in our language especially the structure or syntax of our language.

Rule governed means that human neurological processing and behavior have consistencies in each individual, e.g., strategies are the rules for a person.

The rules are what determine how we organize what we see, hear and feel, and how we edit and filter the outside world through our senses. The rules also determine how we describe it in language and how we act, both intentionally and unintentionally, to produce results. We may not be consciously aware of these rules that are behind our behavior but the structure is present. We can change these

rules when we become aware of a better or more ecological way to accomplish our highest intention or highest value.

3. Modeling

John Bandler and Richard Grinder wrote The Structure of Magic I, A Book About Language and Therapy in 1975. This was the first NLP book to be published and is still the definitive one on the Meta Model (a model about modeling). The book is very detailed and with material on transformational grammar. The Meta Model is presented in an overall context of psychotherapy. The second book followed in 1976 The Structure of Magic II, A Book About Communication and Change. These companion concepts contain a detailed account of synesthesias, incongruity and representational systems in a context of family therapy.

Modeling is at the heart of NLP. NLP is the study of excellence, and modelling is the process that makes excellence explicit. What are the patterns of successful people? How do they achieve their results? What do they do that is different to people who are not successful? What is the difference that make(s) the difference? The answers to these questions have generated all the techniques associated with NLP. (O'Connor, 1990, p 173)

NLP is the art and science of personal excellence. Art because everyone brings their unique personality and style to what they do, and this can never be captured in words or techniques. Science because there is a method and process for discovering the patterns used by individuals in any field to achieve outstanding results. This process is called modelling, and the patterns, skills and techniques so discovered are being used increasingly in counselling, education and business for more effective communication, personal development and accelerated learning. (O'Connor, 1990, p 21).

Many NLP Practitioners refer to themselves as modelers. Bandler and Grinder claimed that they see their task as figuring out what it is that effective therapists such as Virginia Satir, Fritz Pearls, and Milton H. Erickson, do intuitively and develop rules or structure for that behavior that can be taught to others. It is their belief that behavior is rule-governed, and even though a person may not consciously know what the rules guiding their behavior are, there is nonetheless a structure present. By determining and explicitly stating what the rules or guidelines of another person's behavior are, these rules can then be taught to others who can use the rules in the same way in order to get the same kind of results as the person being "modeled," according to Bandler and Grinder.

The patterns identified are the sets of beliefs, values, attitudes, heuristics, internal mental processes and physical activities that characterize certain skills. The Meta-model is a way of talking about the model and modeling. The Meta-model is based in part on work done in the area of linguistics called "Transformational Grammar."

The Meta Model is a linguistic (digital) tool which has proven extremely useful in therapeutic as well as other settings. It is based on the observation that human behavior, especially linguistic behavior, is rule-governed. The same processes of generalization, deletion, and distortion used in creating our models of reality are also used in the creation of our linguistic representations of experience. (Lewis, 1982, p 72)

The Meta Model is covered in the seminal book by Dilts, Grinder, Bandler, and DeLozier titled Neuro-Linguistic Programming Volume I published 1980 and it is still valid in a rapidly growing field.

Some definitions from the Glossary by Lewis are as follows: The Meta Model is a linguistic tool for using portions of a person's spoken or written behavior to determine where he/she has generalized, deleted, or distorted experiences in his/her model of the world. It includes specific "Meta Model responses" to those "Meta Model Violations" which aid in obtaining a more complete representation from the person's deep structure. Certain responses also help to reconnect the speaker with his/her own deep structure in ways which can expand his/her perceptions and give him/her more choices about how to feel and behave.

Surface structure in NLP is the spoken or written portion of communication which is derived from the deep structure using the processes of generalization, deletion, and distortion. Deep structure in NLP is the most complete linguistic representation of an experience. A person's deep structure is a linguistic model of his/her model of the world. Just what that information may be, is sometimes determined by the language or culture of the individual. Language is not an isolate in communication. Body language

is also not an isolate nor are value or belief systems. Indeed, man is not an isolate in any way. It is especially important to remember in a cross-cultural communication.

Analytical studies have shown that in presentations before a group, 55% of the impact of communication is determined by your body language, 38% by your tone of voice or vocal tonality (how something is said) and only 7% is the content or the words actually said as reported by M. Argyle in 1970.

There are certain constraints or "filters" on the model-building process for each individual. Dilts, 1983 states "In NLP, it is important to identify and distinguish between behaviors generated by the individual's external setting (or context) and the individual's internal response to that context." Making an internal visual image is as much a behavior as walking, laughing, or talking.

Cybernetic theory is essentially a meta-model (a model about modeling). Cybernetic models are different from statistical or linear models in that they deal with feedback of total systems, systems in which events at any position in the system may be expected to have effect at all positions on the system at later times.

In human behavior, a particular cause or effect cannot be isolated from its context. Therefore, each part must be considered and measured in terms of the whole. Human behavior and experience are undoubtedly the result of such a system. Therefore any satisfactory model of human experience, behavioral, physiological or epistemological, must be cybernetic. (Dilts, 1983)

Models are interesting devices. They are descriptions or simulations of how something works in a certain area. In essence, a model is a blueprint or a

map. Like a map, a model is not necessarily "true." It is just a representation of reality. So we are not necessarily looking for truth in making this model; we are only attempting to describe how the human personality works. Like a map, it is only a description; and the value of any map or blueprint is in the result that you can produce by using it. (James, 1988, p 3)

4. Representational Systems

The book Frogs into Princes laid out the representational systems, anchoring, and reframing techniques in the format of a transcript of a three day seminar in which these techniques are presented in a teaching mode with many examples.

The Representational System concepts begins with the fact that we, as human beings, do not operate directly on the environment in which we exist, but rather through sensory transforms of that environment that can be grouped into six major classes: vision (sight), audition (hearing), kinesthesia (tactile body sensations), proprioception (internal visceral and emotional states), gustation (taste), and olfaction (smell). All distinctions that human beings are able to make about their environment (internal and external) or their behavior must be represented in terms of these senses. (Dilts, 1983, part 2, p 5).

These are how we represent "reality" to ourselves such that we can perceive a pattern and feel we understand and can communicate about this "reality" to others.

People experience the world differently because each person develops his own map or model of the world from the information he receives through his senses or "representational system" (sight, sound, feeling, taste, and smell). (Dilts, 1983, p 4).

Through clinical and experimental research, NLP has found that the direction and position to which an individual

momentarily averts the eyes, when recalling information or answering a question, indicates the representational system (PS) he is accessing. A left-handed or ambidextrous person will often have a different pattern of eye movements from the more common right-handed person. A person's accessing cues will be consistent for that individual person.

When people are thinking or talking, they move their eyes in what is known as eye-scanning patterns. These movements appear to be symptomatic of their attempt to gain access to internally stored or internally generated information. This information is encoded in our minds in one or more of the representational systems. When a person "goes inside" to retrieve a memory or to create a new thought, he exhibits certain behaviors indicative of the representational system he is accessing at the moment. (Lewis, 1982, p 116)

The following is a description of the eye scanning movements for the majority of right handed people in this country:

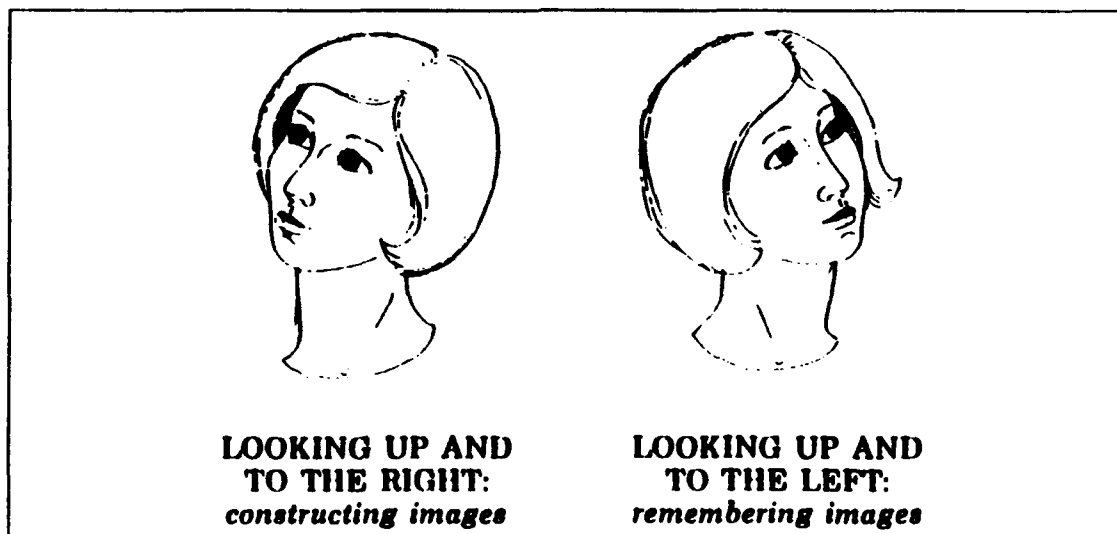


Figure 1. a. and b. (see Lewis & Pucelik, 1982, p 121)

a. Looking up and to the right: - Constructed images, these are visual images/pictures created by the individual.

b. Looking up and to the left: - Eidetic images, these are stored visual images or pictures of past events and other previously experienced visual stimuli.

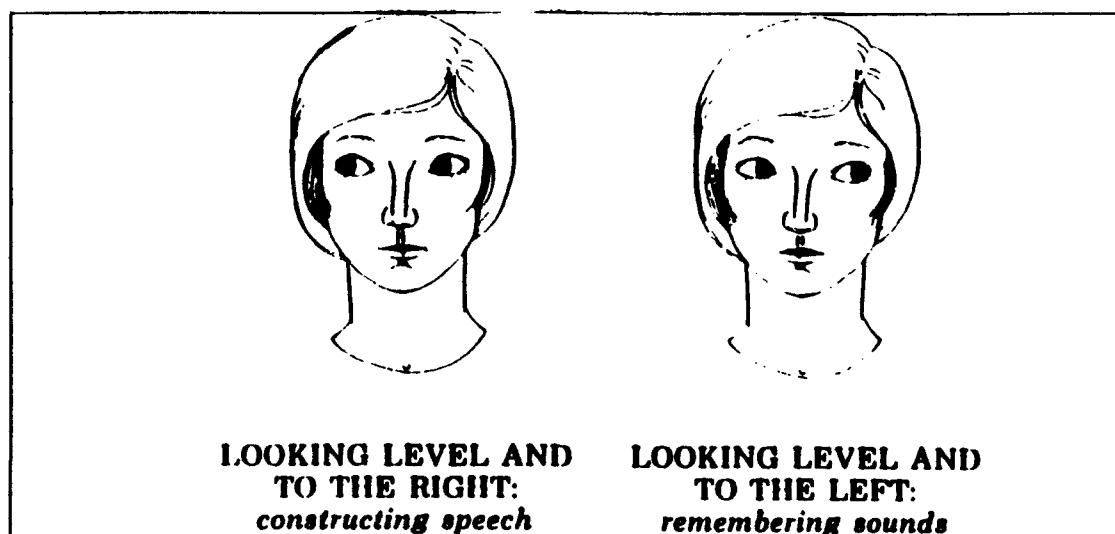


Figure 2. c. and d. (see Lewis & Pucelik, 1982, p 121)

c. Looking level and to the right: - Constructed speech, this pattern is usually associated with the process of creating spoken language or imagining a new sound e.g., bag pipes playing 'Ave Maria'.

d. Looking level and to the left: - Remembered sound.
NOTE: The next two eye-scanning patterns are often reversed in both right and left handed people. It is important to determine which pattern is being used by an individual before you can use the information gained from observing these eye movement.

e. Looking down and to the right: - kinesthetic memories such as what does this feel like?

f. Looking down and to the left: - Internal dialog, talking to oneself inside one's own head, thinking in words.

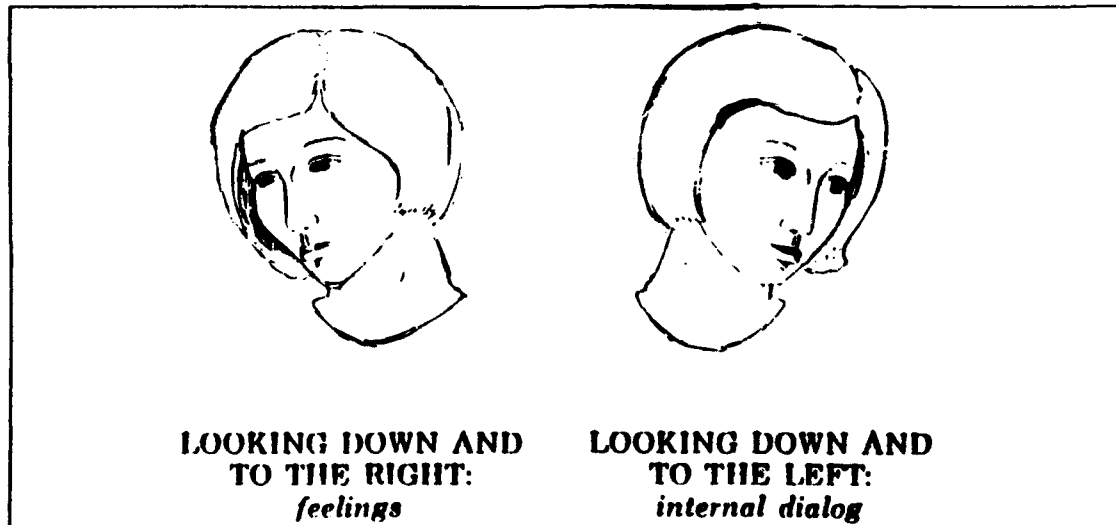


Figure 3. (see Lewis & Pucelik, 1982)

This represents a generalization of human behavior. When in doubt, check it out. The Practitioner needs to learn the client's pattern.

Other accessing patterns are the defocused eyes or closed eyes indicating a withdrawal for internal processing. There are signs of the accessing patterns other than the eyes, such as breathing, body postures and other minimal clues.

Mapping is a process by which you can determine both an individual's preferred representational system and also that person's eye-scanning accessing patterns. Once you have

acquired this information, you can use it with the confidence that their system is consistent for them.

5. Anchoring

Anchoring is the process of associating an internal response with some external trigger (similar to classical conditioning) so that the response may be quickly, and sometimes covertly, reaccessed. Anchoring is the learned association between a stimulus and a response, or between one response and another. When the stimulus, or initiating response, is triggered, the associated response will be elicited. All anchoring is a created association of thoughts, ideas, feelings, or states with a specific stimulus. We remember Pavlov's experiments with dogs and a tuning fork-food association.

We live in a stimulus/response world, where much of human behavior consists of unconscious programmed responses. Many feel that their behavior is unconscious and uncontrollable. The key is to become conscious of the process so that if anchors do not support you, you can eliminate them and replace them with new stimulus/response linkages that automatically put you into states you desire.

So how do anchors get created? Whenever a person is in an intense state where the mind and body are strongly involved together and a specific stimulus is consistently and simultaneously provided at the peak of the state, the stimulus and the state become neurologically linked. Then, anytime the stimulus is provided, the intense state automatically results. (Robbins, 1986, p 274-5)

Not all anchors are positive associations, some are unpleasant or worse. One of the things that affects the

power of an anchor is the intensity of the original state. If you hear something often enough (like advertising slogans), there is a good chance it will become anchored in your nervous system. Anchoring is deliberately and consciously used by some serious athletes to anchor optimum states to specific conditions in their competition to increase their chances of winning.

Anchoring is one of the NLP concepts used in the technique taught to the volunteers to reduce anxiety or oral presentation in this study.

There are four keys to successful anchoring: -

1. For an anchor to be effective, when you provide the stimulus, you must have the person in a fully associated, congruent state, with his whole body fully involved (intense state).

2. You must provide the stimulus at the peak of the experience to capture the full intensity.

3. You should choose a unique stimulus - a clear and unmistakable signal to the brain.

4. For an anchor to work, you must replicate it exactly.

If our anchoring procedure follows these four rules, it will be effective.

You can do this for yourself and be successful, it is advised however not to do this alone if the original

event is a phobia or a severe trauma which should be handled by someone with a great deal of experience to support you during this reprogramming.

6. Reframing

In 1982, Bandler and Grinder published Reframing, which assumes the knowledge detailed in Frogs Into Princes and further develops these concepts.

All meaning is context dependent. If you change the context, meaning or content, you will change the original meaning. A shift in context reframing can be by shifting location, time, state, circumstance such as family or business, resources, intention, consequences, chunking or frame size.

At the heart of reframing is the distinction between behavior and intention: what you do and what you are trying to achieve by doing it. Often what you do does not get you what you want. Sometimes it does get you what you want but does not fit in well with the rest of your personality or creates conflict. The way to get rid of unwanted behaviors is not to try and stop them with will-power. Find another, better way to satisfy the intention, one that is more attuned to the rest of your personality. A personality can be a whole integrated being or it can have parts of itself that are different.

A part of a personality would be a nonintegrated part of the unconscious mind where each has a purpose, an intention and a function/behavior. Parts are created by a significant emotional experience, parts are incongruent with the whole personality but may be congruent within themselves. Parts may be created to repress or protect a nonintegrated behavior.

We are a mixture of many parts, and they often conflict. It is difficult to be totally congruent, totally committed to one course of action, and the more important the action, the more parts of our personality have to be involved.

NLP has a more formal reframing process to stop unwanted behavior by providing better alternatives. Six step reframing works well when there is a part of you that is making you behave in a way you do not like. It can also be used on psychosomatic symptoms.

1. First identify the behavior or response to be changed.
2. Establish communication with the part responsible for the behavior.
3. Separate the positive intention from the behavior.

4. Ask the part doing the behavior to contact the creative part to generate new ways that will accomplish the same purpose or intention.

5. Ask the part doing the behavior, if it will agree to use the new choices rather than the old behavior over the next few weeks.

6. Ecological check. You need to know if there are any other parts that would object to your new choices.

Tad James and Wyatt Woodsmall both Master Trainers of NLP, noticed that in Reframing, some parts were installed and that there might be more parts left than there were at the start of the therapy, and they strongly believed that the fewer the parts, the better. The parts should be integrated into the whole person from whence they came. The parts integration (or visual squash) technique was developed to integrate parts and the further separated the two parts were, the more the integration of the whole person when these two parts became one and then join the basic personality.

Other concepts and techniques exist in NLP. A recognized need to standardize the basic body of knowledge that should be known by someone claiming to do NLP resulted in a definition of a NLP Practitioner and that of a Master Practitioner. A National Association of NLP was organized to standardize the training and certification of Practitioners

and Master Practitioners of NLP throughout the USA. Certification was also developed for the Trainer and Master Trainer doing the training and certification of the Practitioners and Master Practitioners as well as the Trainers. All of this is now spreading throughout the world in countries of basically European culture as of 1990. It is believed by the more experienced NLPers that these techniques are mostly independent of culture. This is an area of current interest as NLP spreads. The name of the association was expanded to International Association of NLP (IANLP) and then with international pressure changed to North American Association of Neuro Linguistic Programming (NAANLP).

C. TIME LINE THERAPY

Another important extension beyond the basic NLP was developed by Tad James and Wyatt Woodsmall in the mid 1980's and was published in a book titled Time Line Therapy and the Basis of Personality in 1988. This new technique goes beyond NLP yet is built upon NLP, and has emerged as a significant contribution in the dynamics of human change. To understand this new technique you must have a thorough knowledge of NLP. In Time Line Therapy¹, one becomes aware of the time

¹Time Line Therapy is a trade mark by Tad James and Advanced Neuro Dynamics and all references to Time Line Therapy in this thesis is subject to this trade mark protection.

ordered storage of memories - how do you know if some event is in the past, present or future and when relative to other events. This defines a time line which can be used to work with memories of past events or to work with events anticipated in the future.

These memories are stored and organized by the unconscious mind as we age and with time, they have more and more influence. As we consider our memories, we are aware of which memories are in the distant past, the nearer (in time) past, and the future memories or dreams. Our memories are time ordered or oriented. To find out how you organize your memories, think of something that happened in the past and notice what you feel is the direction from which the memory came. Then think of something that is going to happen in the future and notice from what direction it came to you. Now think of the three points, the past, the now, and the future and mentally draw a line between them. This line does not have to be a straight line but it does represent your time line as a linear ordering of the events in your life.

Some of the purposes of therapy is to remove or reduce negative emotions such as guilt, fear, phobia reaction, and anxiety. Most of these are time related as guilt is of something done (or not done) in the past, a phobic reaction started in the past with some event with a strong fear associated, anxiety is about something expected to happen in

the future that has a milder or more diffuse fear associated which inhibits your ability to perform and/or enjoy this event. The time line was a part of the technique taught to the volunteers in the exploratory study.

Depression can be caused either by a traumatic event or by an accumulation of frustrations or disappointments, which is often associated with a limiting decision made earlier, sometimes even made in-utero. Sometimes the person who has the accumulation of nontraumatic events will feel they have depression with no known cause. The unconscious mind will usually be able to bring the underlying cause to the conscious mind with proper help from a skilled therapist. This type of underlying cause can be the trigger to forming a limiting decision to try to minimize the hurtful emotions from these causes.

In removing limiting decisions or negative emotions, it is usually necessary to go to the first event of the negative emotion that led to it. Sometimes there is a series of related events which build a gestalt or a string of pearls (with apologies to Fritz per Tad James) and one needs to find the first one to completely remove the negative emotions that lead to making the limiting decision.

Tad James uses Time Line Therapy to get to the significant emotional experience which triggers most (over 50%) of the negative or painful memories such as those

associated with phobias, guilt, or fear. Time Line Therapy goes on to inform the therapist how to retain the learnings from the experience and then to remove the negative emotion which will enable the client to re-evaluate the limiting decision made on the basis of the significant emotional experience or to remove the phobia, guilt, or fear that inhibits or limits the client's choices and/or enjoyment of life.

A personal growth aspect of Time Line Therapy is in creating your own future by placing something or an accomplishment into your future. A detailed strategy for doing this is incorporated in Tad James' book The Secret of Creating Your Future published in 1989. Tad James and others are taking these seminars and training sessions in NLP to many other countries as well as many cities in the US.

Part of the technique taught to the volunteers in this study came from Tad James' concept of Creating Your Future.

Joseph O'Connor and John Seymour, NLP trainers in England, published a book in 1990 which is a once-over-briefly view of NLP with a valuable source book annotated bibliography plus a listing of NLP organizations and a glossary of NLP terms. This source book section gives a view as of 1989 of the international spread of NLP while stating that the list is not complete.

D. RELATED STUDIES OF NLP AND CA

The following are brief overviews of studies completed and published before 1989 that are directly related to NLP.

1. Advanced Behavioral Modeling

Wyatt Woodsmall extended NLP into Advanced Behavioral Modeling which integrates behavioral technologies based on neuro-linguistic programming, accelerated learning methodology, human topological analysis and value theory.

Woodsmall states that Advanced Behavioral Modeling is a model based training process for capturing, replicating and transferring any expertise, ability or skill rapidly and cost effectively focusing on process as well as content. The four key aspects are 1) enabling beliefs; 2) values; 3) internal mental approach, or cognitive strategy; and 4) physiology of the expert or high performer. Enabling beliefs refers to people performing well only when they have a set of beliefs that support high performance. Values are the key to motivation. Internal mental approach (Cognitive Strategy) refers to the fact that blind repetition of random activities gains nothing, rather it is through rehearsal and mastery of the specific mental syntax and sequence of the expert. Physiology of mental and physical 'postures' of the expert leads to increased performance.

The primary methods of modeling are the elicitation of the strategies, beliefs, values and overt behaviors that

are critical to the task as opposed to those which are purely idiosyncratic to the expert. Wyatt Woodsmall develops the eight steps in the modeling process.

Wyatt Woodsmall's work seems to be the same as that of eliciting the mechanistic aspect of an expert's expertise as in building computer Expert Systems plus a much larger part of the work coming from the cognitive psychology, physiology, and NLP; i.e., an interdisciplinary approach.

2. Neuro-Linguistic Programming

Michael Dean Yapko wrote his dissertation for the Ph.D. in Professional Psychology in 1980 on Neuro-Linguistic Programming, Hypnosis, and Interpersonal Influence. This is a study about the role of verbal language in the therapeutic process. Psychotherapists may choose to use NLP to improve their communication skills as a means of improving the quality of their work. An objective of this study was to test the assumption by NLP that each human being has one especially well developed sense called the "primary representational system," on which they rely to process information from the world around them. A therapist can work with the client better when there is greater rapport than when there is less rapport. Matching primary representational systems between those engaging in a conversation is correlated with better communication via

better rapport according to NLP. Better rapport induces more confidence and less anxiety between communicants.

There is clear resolution between categories of visual, auditory, and kinesthetic words. Yapko developed a hypnotic induction for each of the three representational systems. The hypnotic inductions were operationally designed as communications intended to influence subjects to physically relax, and corresponded linguistically through predicate variation with the three dominant representational systems under consideration namely visual, auditory, and kinesthetic. These hypnotic inductions were tape recorded for standardization.

The subjects in this study were 30 native English speaking university students who showed a slight to strong preference for one of the three representation systems. An electromyograph (EMG) machine was used to test the level of relaxation. Each subject was given each induction with correlation showing the relaxation being the most for the subjects primary representational system, second most for their second preferred representational system and least for their tertiary system. His statement that "when communicators can become sensitive to the concept and the practice of deliberately matching primary representational system predicates, the result will be more effective communications" is the primary implication of his research.

Michael John Krim wrote his dissertation for the Ph.D. in 1983 on Stability and Interrater Reliability of Visual Accessing Cues. The purpose of the first part of the study was to investigate eye movements in regards to sensory processing of information as per the NLP model. The 30 subjects (25 right handed and 5 left handed) were tested by asking sensory specific questions which should elicit eye movements. A second similar session followed the same format. These sessions were video recorded and were later analyzed by the investigator and two other raters who were naive to the NLP model. No information is given as to Krim's NLP knowledge or training. The results were unclear as to which eye movement was the first one in response to the question as few individuals wait until the last word of a question before starting to process the information.

Donald John Lofland wrote his dissertation for the Ph.D. in 1991 on Powerlearning (RTM): Discover The Learning Advantage. The first seven chapters were written as a trade book with the appendix as a research companion document. The purpose of this study was to research accelerated learning methods and create a syncretic model of these methods.

The five component model consists of 1) learning based on innovative methods, 2) right brain/left brain and the vertical models of the brain, 3) NLP techniques that apply to innovative learning, 4) Suggestive Accelerative

Learning Techniques [SALT or Superlearning], and 5) Information Management Strategies-memory, reading, study, and time management skill, and clarity of thought in pursuing personal goals.

James Dennis Williamson wrote his Master's Thesis in 1986 on An Implementation Guide for the Experimental Application of Suggestive-Accelerative Learning and Teaching to the Coast Guard Training Environment. An experimental design for the application of SALT to the U.S. Coast Guard Emergency Medical Technician School curriculum is proposed. Further a comparison is made between SALT and two models of brain function those of Program Structure (Proster) theory and Neuro-Linguistic Programming.

3. NLP and CA

Richard L. Hale wrote his dissertation for the D.Ed. in 1986 on The Effects of Neuro-Linguistic Programming on Public Speaking Anxiety and Incompetence. This is a study to compare the amount of success of treatment for public speaking anxiety between NLP and Rogerian Insight as a form of Placebo. The Rogerian Insight encouraged the subject to talk about their feelings about speaking in public and was chosen because it has been demonstrated that this type of treatment is usually ineffective with speaking problems, therefore would be a suitable placebo. The NLP techniques used by the therapist included: assessing the primary

representational system; mirroring and pacing; anchoring; reframing; creating a new part; advanced six-step reframing; and negotiating between parts. This was to be done according to the best NLP standards at that time.

Various measures were used to score their eight subjects of which only six completed all phases of the experiment. A large amount of statistical analysis was done on the data collected. The data from this study indicate that NLP treatment for speech anxiety and incompetence is not generally more effective than a placebo treatment. Hale states that even though the use of one-session NLP treatment does not appear promising when compared with other treatments, it is possible that more sessions of NLP could be effective.

David Michael Ferguson wrote his dissertation for the Ph.D. with major in Education in 1987 on The Effect of Two Audiotaped Neurolinguistic Programming Phobia Treatments on Public Speaking Anxiety. He used an audiotaped version of the NLP Phobia Cure and an audiotaped version of the NLP Fast Phobia Cure and an audiotaped version of Massed Systematic Desensitization or no-treatment. With a mean of 14 subjects at each treatment session, he detected no difference in the results of these treatments after a three week follow up testing.

Martin Krugman et.al. wrote an article in 1984 comparing a single session NLP treatment, an equally long desensitization treatment and with an equally long waiting room group on the effect in treating public speaking anxiety. Their results were that there was no indication that one method was better than the others at least in this one hour short time treatment.

In summary, these studies have been inconclusive and disappointing due to the relative immaturity of NLP at the time the studies were made with resultant misinformed expectations of how to use the techniques. NLP itself was just 10 years old and the developers of this field of knowledge were setting standards as to just what knowledge and skills were required to qualify as an NLP Practitioner or as a Master Practitioner. Only one study stated that the individual administering the technique was trained and experienced in NLP. Similar experiments done now using qualified NLP Master Practitioners in the now more mature field of NLP would be much more indicative of the efficacy of NLP.

You can learn NLP from books, but NLP is experiential. It involves having the perceptual filters, the patterns and the skills in your behavior, rather than just as ideas in your head. Personal experience with others has so much more

meaning and impact than the written word. NLP is to be used at the level of experience if it is to be of any value.

Many other books have been published as well as journal articles, various dissertations and theses, and a few of these are listed in the bibliography at the end of this thesis.

IV. DATA ANALYSIS

Data were collected in two basic forms, one was the written questionnaires from the volunteers immediately after both the first and second oral presentations, the second one was the video tapes made of each volunteer's presentation. An additional follow-up interview was conducted to explore the effectiveness of the NLP technique.

A. ANALYSIS OF VIDEO DATA

Each student volunteer had a video tape that contained the first 3 minute presentation. This presentation was given before any NLP training was taught. Following the taped three minute briefing was the five minute information type presentation made after the NLP technique was taught. These video tapes were collected from the students and analyzed by a team of three people who were familiar with the NLP concepts. The video tapes were viewed in one session in which the observers looked for distinguishing characteristics that showed clearly on the monitors. Observable criteria were established that could be used to discriminate between the two presentations.

The dominant characteristic was the auditory tonal aspect. The content of the presentations as well as individual accents were ignored and by shutting that out and concentrating on the tonals, the pitch or tone and its

range, volume and its range, speed or pace of speaking, timbre or voice quality (e.g., crisp and clear or raspy), and the clarity of enunciation were noted.

The next characteristic was the kinesthetic or body movement and muscular tension such as tight jerky movements versus smooth movements; wide, large movements versus tight, close to the body movements; hand twitching or trembling; pacing, or rocking from foot to foot, or similar movements. The rigidity or flexibility of the entire torso, especially the shoulders was noted as well as the facial muscles around the mouth and in the area of the cheeks and to a lesser extent around the eyes.

The breathing was discernable for some individuals in both the first and the second presentation and so could be compared. Were they breathing at the top of the chest or the middle of the chest?

Platform techniques had already been taught to the students to reinforce their earlier experiences and these included not to just stand up there and read their written notes, nor to talk to the screen or the board which effectively kept their back turned away from the audience and similar distracting sounds and motions. Largely due to this training and experience, relatively little of the negative platform behavior was noted but it was there in some cases.

The room lighting, overhead projector light and the camera light availability prevented the skin color changes from being perceived.

Using the criteria described above, a comparative analysis was done on each of the student volunteer's taped presentations. Each student was done separately comparing the taped first (pre-training) presentation with the second (post-training) presentation.

From physiological psychology, the accepted correlation of tight muscles with high levels of fear or anxiety and the less tight or more relaxed muscles with less fear or anxiety, we noted that all of the student volunteers showed a decrease in muscle tightness. Not every volunteer showed improvements by every criteria. The improvements showed in many ways, a clearly detectable difference was noted especially in the tonals in virtually every volunteer. The range of the pitch of the voice was usually increased as well as the dynamic range in the volume. At a more subtle level was a smoothing of the timbre of the voice. The pacing was more even and the flow of the speech was improved.

Anxiety normally produces the tightness that restricts bodily movement except in those who get so anxious that they make large jerky movements. Two of the volunteers had rapid jerky movements during the first presentation which were much reduced in scope and smoother in motion during the

second or posttraining presentation. For most of the others, the movement of the body was more relaxed and expressive in augmenting their communication after the posttraining than before.

The movement and the tension of the muscles of the face were noticeable on both the pre and post training recordings on several of the volunteers. It was rare to see the muscles around the eyes but the muscles of the cheeks appeared softer and more mobile in the posttraining video. Also the muscles around the mouth and lower lip showed similar changes.

For the difference in breathing, where this could be seen on the video tapes both in the first and later in the second presentation, all started with the breathing at the top of the chest and after the NLP technique training, the breathing was detectable at the middle of the chest. This correlates with the decrease in bodily tension which again correlates with less anxiety.

As the research of Barry Schlenker reports (see Schlenker, 1982) a person making an oral presentation is at some level aware of the image that he/she wishes to project upon the audience especially when making an oral presentation to an audience whose opinion he/she values. This aspect of the projection of a marine or naval officer, high level decision maker, or a competent, confident,

capable leader applies not only to the military but to the rest of life as well (even when talking to an audience consisting only of oneself). You might notice this when you are practicing your upcoming presentation to yourself in the mirror. You want your audience to perceive your image of who you are and what you are as this affects their reception of what you say.

Several tapes from students in the same classes, who were not volunteers in this study were viewed using the same criteria as applied to the volunteers' presentations, to provide a way to compare the improvement between the first and second presentations of those who were trained and those who received no training. The overall consensus is that there was very little improvement between the presentations of the students who did not receive the training as compared to the noticeable larger improvement of those who did receive the training as far as the external performance was perceived.

B. ANALYSIS OF QUESTIONNAIRE DATA

Three questionnaires were administered during this study (see Appendices A, B, and D). These questionnaires were tailored to the anxiety aspect of oral presentations. As was mentioned previously, McCroskey stated that the only valid indicant of CA or anxiety is the individual's report of the experience. These questionnaires were answered in a

nonthreatening environment and so can be considered valid reports of their perceived internal feelings of anxiety.

State anxiety in our volunteers was examined. The history questions solicited deals with earlier state anxiety. The recognition that there might be a secondary level of anxiety due to the individual volunteer giving the presentation, having some other language as their primary language was noted. This would introduce a secondary source of anxiety and so was elicited and further whether that individual had anxiety earlier when making oral presentations in their primary language.

The information from the questionnaires would represent their own internal awareness of their feelings and not necessarily the perceptions of an observer. The state anxiety was accessed from the pre and post-training questionnaires.

The first presentation was to be about 3 minutes and the subject was to be something that you believed would be of interest to your classmates. Looking at the Pretraining Questionnaire #1 (see Appendix A) shows that even though most of the volunteers stated that they felt tense, nervous, and neither calm nor relaxed during the presentation, they did feel that they had something worthwhile to say. They felt somewhat self-confident while talking even though their heart was beating faster than usual. (see Data in Appendix F)

The assumption is that the screening process for applicants to NPS would have eliminated those with very high anxiety to either oral or written informational briefs. This would explain why there were none among the student volunteers in this study. Nearly all answers were in the low to moderate range for the state anxiety questions. It is possible that those with no oral anxiety would not have volunteered for this study.

The statistical data on the 17 volunteer students shows a mean of 1.93 with the standard deviation of .38 and a range of 1.30 to 2.90 on the Communication Anxiety Inventory questionnaire. The same statistics for this data for all sections of MN3333 given in the summer 1993 has a mean of 2.01 with a standard deviation of .42 and a range of 1.20 to 4.00. The values are 1 equals not apprehensive and 4 equals very apprehensive. The mean for the 17 volunteers is lower than the mean for all students in the sections.

A history question for those volunteers whose primary language was not English (primary language is the one in which you think, dream and are most fluent) - did you experience anxiety before making an oral presentation in your primary language? They uniformly stated that they did experience anxiety even in their primary language. (see Appendix G)

In response to the history question about experiencing anxiety before making an oral presentation all but one volunteer reported that they were anxious. (see Appendix H)

In response to further history questions, did you feel anxious when you were presenting? the answer was yes. How long after you have successfully completed your presentation do you notice that your anxiety is gone? the answer varied from disappearing during the presentation to as long as 15 to 20 minutes though most answers were in the range of a few minutes.

The questions on the posttraining questionnaires regarding the perceived effect of using the technique on the preparation phase before the second oral brief is all positive benefit expressed in their own words. (see Appendix I)

There are similar questions on the Pretraining questionnaire #2 and the Posttraining questionnaire which were designed to give some comparable data.

The remainder of the questions on the questionnaires concerned the oral presentation just given. On the comparison of the answers to similar questions before the training and after the training, for the 17 volunteers, the following is revealed:

Feeling well prepared before the presentation;

12 before training and 14 after training

Time spent in preparation;

varied from several days to several hours before training and dropped to variation from 10 to 15 hours to several hours after the training;

The number of these who practiced their presentations out loud remained the same but the number of times practiced dropped after the training;

Those who made eye contact with every member of the class at least once, went from 6 before the training to 12 after the training; more volunteers stated that they tried and partially succeeded in making eye contact with the entire class sometime during the presentation;

Pretraining question #4 showed a dominant concern with their own internal feelings (see Appendix J), whereas the equivalent posttraining question #5 seemed to be more outwardly concerned with the presentation itself instead of the internal feelings. (see Appendix K)

Since the students who did not volunteer to take the training were not given the questionnaires, no comparison can be made as to the difference if any, in their internal feelings of the second presentation versus their first presentation in the course.

C. FOLLOW UP INTERVIEWS

Two months after the experiment was conducted in MN3333, the student volunteers had completed the summer quarter and

progressed to the courses for the fall quarter with the requirements of those courses. The volunteers were interviewed with the goal of ascertaining if there was any long term effect of the training to relieve the oral anxiety in their ongoing life as students and/or professionals. (see Appendix L)

One of the volunteers had used this technique several times in his courses and then had been selected to go to Washington D.C., to present some outstanding work he had done and there to present that work. He used the technique not only for the original presentation there but then he presented himself and his work to three large groups of ensigns. These presentations to the ensigns were followed by the Q&A type periods of think on your feet to respond to the questions. He reported that he had used the technique and felt that it had helped. Most of the other volunteers had less dramatic or critical experiences with the oral presentations but were making these presentations in many other courses and were using the technique.

The data analysis has shown that the NLP technique used in this exploratory study has reduced the negative affect of the communication anxiety of the volunteers. This is summarized with implications in the next chapter.

**V. SUMMARY, LESSONS LEARNED AND RECOMMENDATIONS
FOR FURTHER RESEARCH**

A. SUMMARY

In approximately twenty years, NLP has grown and developed from the first attempt at the modeling of Fritz Perls, Virginia Satir, and Milton Erickson into an approach to psychotherapy that is currently spreading in popularity throughout the United States and many areas of Europe. It is rooted in the principles of neurology, psychophysiology, linguistics, cybernetics and communication theory. It emphasizes the rules governing conditioning and behavior, or conditioning at the level of Learning II, that is, "learning to learn" according to Bateson. NLP is humanistic rather than mechanistic.

The students of NLP took the basic and not so basic techniques into their own realm of interest and expertise and then further developed these tools adapting them to the uses in their area of interest. This has produced a growing richness in the fields to which NLP has been applied and found to be very helpful or insightful. The vitality of the cross-fertilization of knowledge and ideas is still evident. Interdisciplinary studies provides a new viewpoint and prospective to the more established fields of study.

NLP is a therapy which can be used either in psychotherapy to help a client with a problem being experienced in their life or for personal growth in their life. Personal growth will probably evolve in either case as the therapeutic use of NLP will result in the awareness of more choices providing greater freedom to choose a positive outcome realistically.

The exploratory work reported here in the applicability of one or more NLP techniques to ameliorate the anxiety before and during an oral presentation before a group has shown that it is possible, using the technique tested on the volunteers in this study. The results as reported in Chapter IV, show a significant improvement both at the internal level of the communication apprehension and at the externally observed improvements in the presentation. This technique was taught in one session and can be used repeatedly as future needs arise. The strength of the anchoring part of the technique can be renewed and thereby maintained indefinitely. This technique can be used in other similar situations as the individual requires.

The follow up interviews show that the volunteers do feel that this technique helped them in the course and intend to use it in later oral presentations before a group. Many reported that they had already used this technique several times and it continues to work for them.

B. LESSONS LEARNED

1. The primary lesson I learned from this exploratory study of NLP and its efficacy in ameliorating the anxiety surrounding the giving of an oral informational brief, was that the technique used appeared to work. This technique required a fairly simple instructional session given by a Master NLP Practitioner. The technique has the possibility for long term use and not just as a one time only use. By implication, many of the other NLP techniques would work similarly well and it would be profitable to become more knowledgeable and proficient in NLP and Time Line Therapy.

From the readings, NLP would be valuable in many other areas of Management Systems. It has already been applied successfully in the fields of management and business by some NLP Master Practitioners.

2. When giving an oral brief or presentation in a language other than one's primary language, a layer of anxiety separate from the anxiety that might exist when giving an oral brief or presentation in one's primary language should be considered. The international students attending NPS come from many different countries with different official languages other than English. In addition, many people use yet another language as their primary language and translate between it and the official

language of their country. Each level of translation brings another level of anxiety during communication.

3. This exploratory study has shown a definite advantage to the student volunteers in the Managerial Communications course (MN3333) in reducing their anxiety in giving an oral informational brief before a group of their peers when using the technique from NLP that was taught to them. To gain a more quantitative evaluation of teaching and using the NLP technique, and its benefits to the communication aspects of the Management Systems curricula, the recommendation is to perform an experiment as described in the Further Research section of this chapter. This might help answer the question: how much of the observed differences can be attributed to the use of the technique, and how much is simply the result of other factors such as greater familiarity with the situation?

4. Another lesson learned would be to have a written copy of the technique available to the volunteers immediately after the technique is taught and review how to strengthen the positive anchor yourself. The written instructions should be expanded and give greater detail on how to reinforce the technique, especially the anchoring of the strong positive feelings plus instructions on how to use it in other situations. These written instructions would then be available at any time in the future.

C. RECOMMENDATIONS FOR FURTHER RESEARCH

1. A survey to find out just how prevalent communication anxiety is among the students at NPS would be valuable. There would be even more value if that survey could show the degree of severity of the anxiety for what proportion of the student population, so we could examine the desirability of expending resources to ameliorate this anxiety by incorporating an effective technique into the Managerial Communications course or similar courses at NPS.

2. A full experimental design with a complete "control group" analyzed to show just how much of the improvement was due to familiarization with the presentation environment and how much of the improvement is due to the effects of using the technique would give more conclusive data to support the theory that having such a technique available to you would be a worthwhile skill to learn in a communications course taught at the NPS.

A sample size of at least 25 student volunteers with a matching control group would be desirable to lend some statistical significance to the results. Interrater reliability testing of the analysis of the video recording of the two oral presentations using an evaluation criteria (see Appendix M) would be another valuable adjunct to testing the efficacy of the NLP technique.

A hypothesis to be tested would be: Does the use of a technique from NLP to reduce anxiety, show a statistically significant reduction in the anxiety associated with the giving of an oral informational brief before a group of peers?

A second hypothesis to be tested would be: Is there interrater reliability in evaluating the observable phenomena indicative of anxiety or the lack thereof, on the video recordings of briefings made both before and after training in a technique to reduce communication anxiety and comparing the observed differences?

3. Another experiment concerning the possible anxiety in the written report or informational document preparation and its benefit from the same or a similar technique to reduce the anxiety of the writer and thereby decrease the preparation time and/or improve the quality of the report or document could illuminate a possible benefit. This experiment could be done independently from the experiment for the oral anxiety.

There is still a lot of room for growth in the theory, techniques, and field of applicability of NLP. I feel that there is some interesting work to be done in modifying these techniques to work with someone who is not a linear thinker but is rather a global thinker. This would be a much larger undertaking than a Master's Thesis but worth thinking about

as we learn more about learning how to learn and how we actually think.

APPENDIX A

PRETRAINING QUESTIONNAIRE #1

Directions: The following items describes how people communicate in various situations. Choose the number from the following scale that best describes how you felt during the communication experience you just completed.

- | NOT AT ALL | SOMEWHAT | MODERATELY SO | VERY MUCH SO |
|------------|----------|---------------|--------------|
| 1 | 2 | 3 | 4 |
1. I felt tense and nervous.
 2. I felt self-confident while talking.
 3. While talking, I was afraid of making an embarrassing or silly slip of the tongue.
 4. I worried about what others thought of me.
 5. I felt calm when I was talking.
 6. I felt ill at ease using gestures when I spoke.
 7. I could not think clearly when I spoke.
 8. My listener(s) seemed interested in what I had to say.
 9. I felt poised and in control while I was talking.
 10. My body felt tense and stiff while I was talking.
 11. My words became confused and jumbled when I was speaking.
 12. I felt relaxed when I was talking.
 13. My fingers and hands trembled when I was speaking.
 14. I felt I had nothing worthwhile to say.
 15. I had a "deadpan" expression on my face when I spoke.
 16. I found myself talking faster or slower than usual.
 17. While speaking, it was easy to find the right words to express myself.
 18. I felt awkward when I was talking.
 19. My heart seemed to beat faster than usual.
 20. I maintained eye contact when I wanted to.

Source: Booth-Butterfield, 1986

APPENDIX B

PRETRAINING QUESTIONNAIRE #2

History Questions

1. In the past, before you made an oral presentation, did you feel anxious?
2. In the past, when you were presenting, did you feel anxious?
3. How long after you have successfully completed your presentation do you notice that your anxiety is gone?

First (in this course) Presentation questions

1. The day before you gave your presentation did you feel that you were well prepared?
2. How much time out of class did you spend preparing for this presentation?
3. Did you practice giving your presentation out loud?
- 3a. If so, how many times?
4. What made you anxious?
5. Did you make eye contact at least once with each member of the class sometime during your presentation?
6. Were you open to questions from the class at the conclusion of your presentation?
7. Did you get any questions relevant to the subject of your presentation from someone in the class?
8. Were you able to answer the question satisfactorily?
9. Were you able to think clearly enough during the presentation to answer a question if any had been asked?
10. How long after you finished your presentation did you notice that the anxiety was gone?

APPENDIX C

MEMO FROM LOIS BRUNNER 2 AUGUST 1993
TO MN3333-5 & 6
REGARDING THE EXPERIMENT TO AMELIORATE ANXIETY BEFORE AND
DURING THE GIVING OF AN ORAL BRIEFING OR PRESENTATION.

I am writing a thesis for the Master of Science in Applied Science degree in the Administrative Science Department of NPS intending to finish in December 1993.

I have been studying Neuro-Linguistic Programming (NLP) and have chosen to do my thesis about one of the techniques of NLP that is designed to relieve anxiety. Anxiety is defined as the feeling of distress or uneasiness of mind caused by apprehension of danger or misfortune, or perceived threat thereof in the future.

Virtually every student at NPS will be making oral briefings or presentations throughout their professional life and for many individuals, this is accompanied by feelings of anxiety. Oral presentations are an important communication form critical to the success or most any professional life.

My primary thesis advisor is Professor Gail Fann Thomas. I also have Dr. Gene Healy, a Master Practitioner of NLP and Emeritus Professor Rex Shudde, a Practitioner of NLP to keep me correct in the NLP techniques. With their supervision, I am attempting to use one of the NLP techniques to ameliorate the anxiety associated with oral briefings and presentations.

I am asking for volunteers to serve as subjects willing to learn the technique. The individual may keep anonymity if they wish. This course MN3333 grade will not be affected by whether you participate as a volunteer in this project or prefer not to participate.

The technique will be taught in In-263 on 10 August 1993. Section 5 will meet 8 to 10 in the morning. Section 6 will meet from 1 to 3 in the afternoon. I do not expect the session to take the entire 2 hours, but I do want to be sure that each volunteer has the opportunity to learn the technique. These training sessions will be video taped for my self critique, the analysis, and to help me write this chapter in my thesis.

I work in In-111 and can be reached at X3460 most days.

APPENDIX D

POSTTRAINING QUESTIONNAIRE

History Question

1. Is English your primary (think, dream, and most fluent) language?
- 1a. If not, in the past have you experienced anxiety giving an oral presentation in your primary language?

Second (in this course) Presentation questions

1. Did you use this technique before you started to write up your presentation?
- 1a. If so, how did you feel this time as compared to the first presentation when thinking about this upcoming presentation?
- 1b. If so, did your preparation time, effort, organization, confidence differ from the first presentation in this course?
2. The day before you gave your presentation, did you feel that you were well prepared?
3. How much time out of class did you spend preparing for this presentation?
4. Did you practice giving your presentation out loud?
- 4a. If so, how many times?
5. What were some of your major concerns about making this presentation?
6. Did you practice the technique the night before you gave your presentation?
7. When you looked from the point of having successfully completed your second presentation, what did you feel?
8. Did you make eye contact at least once with each member of the entire class sometime during your presentation?
9. Did you feel your mind was clear and under your control while giving your presentation?

APPENDIX E

REDUCING ANXIETY OF ORAL PRESENTATIONS

Emotions are functions of time. Future related feeling states or emotions include anxiety, apprehension, and dread. These are "before the fact" feelings. Emotions such as guilt, embarrassment, and shame are "after the fact" states. These states can be lessened or eliminated by using your imagination and going forward in time or backward in time with respect to the present moment.

Think about an upcoming event or task. If you have any negative feelings about the task and you would like to relieve them, do the following:

1. Imagine doing the future task and note your feeling state.
2. Come back to the present and think about how you would like to be able to feel while performing the task. In order to develop the desired feelings, you can think of some time in the past when those feelings were present. Or, imagine how the feelings would feel.
3. When you are feeling the desired feelings, "anchor" them by bringing the thumb and forefinger of your nondominant hand together and squeezing them slightly. Do this about three times. To "test" the "anchor," bring your attention back to the present moment and be aware of your surroundings, just seeing what you see, hearing what you hear, and feeling whatever body sensations you are aware of in the present moment. Now bring your thumb and forefinger together with the same amount of pressure and notice the change in your body sensations to the desired feeling state. If you need to reinforce setting the "anchor," do so. Keep setting and testing until you experience the desired state.
4. Imagine that you can "float up" over the present moment and look ahead to the future task.
5. Fire the "anchor" by squeezing your thumb and forefinger together.
6. Keeping the thumb and forefinger together, imagine that you are floating out into the future to a time just beyond the completion of the task.

7. When you are out there in the future, just turn around and look back toward "now" and notice how well everything went. Notice how you felt just the way you wanted to feel while giving the presentation. Really enjoy the good feelings.
8. Imagine that you are coming back to "now."
9. Think about the upcoming task.
10. If any negative feelings are present, repeat the above procedure until you can think about the future task and feel the way you want to feel.

APPENDIX F

DATA

Q# is the question number on PRETRAINING QUESTIONNAIRE #1

VA is the extreme anxiety response

Nos. are student volunteers, 1 thru 11 are native English

Student # 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Q# VA

1.	4	4	4	4	3	4	4	3	4	2	3	3	2	2	3	4	2	3
2.	1	4	2	3	2	2	4	3	2	3	3	3	4	3	4	3	4	2
3.	4	4	4	4	4	3	2	2	3	1	1	2	2	1	2	3	2	4
4.	4	3	4	2	4	2	1	3	1	1	2	2	2	1	4	3	2	4
5.	1	2	2	2	1	1	2	3	1	2	3	2	2	2	4	2	3	2
6.	4	2	1	1	1	2	2	4	2	2	1	2	3	1	2	2	1	1
7.	4	X	3	2	2	2	2	2	2	2	4	1	2	1	4	2	1	4
8.	1	4	3	4	1	3	4	2	3	3	3	3	4	4	4	3	4	4
9.	1	2	2	4	2	2	1	2	1	3	3	3	4	2	4	2	3	3
10.	4	2	4	2	2	2	2	3	2	3	2	2	3	1	2	4	2	2
11.	4	1	2	2	3	2	2	1	2	1	1	2	2	1	1	3	2	1
12.	1	2	1	2	1	1	1	2	2	1	2	3	3	3	4	1	3	3
13.	4	2	1	1	2	2	1	2	1	1	1	4	2	1	2	4	2	1
14.	4	1	1	1	2	1	2	1	1	2	1	3	1	1	1	2	1	1
15.	4	1	4	1	2	1	2	X	2	3	1	1	1	1	1	2	1	1
16.	4	1	3	1	2	2	1	2	3	2	2	4	2	1	1	3	2	3
17.	1	2	2	2	2	3	2	2	2	3	3	3	2	3	4	2	2	2
18.	4	1	4	1	3	3	1	2	3	2	1	2	1	1	3	2	3	3
19.	4	4	3	3	3	4	2	4	3	3	4	4	3	2	2	1	3	1
20.	1	2	4	3	2	3	4	2	2	4	4	4	4	4	4	4	3	4

X is missing data

APPENDIX G

DATA from posttraining questionnaire (History questions)

1. Is English your primary (think, dream, and most fluent) language?

1a. If not, in the past have you experienced anxiety giving an oral presentation in your primary language?

Student Number	Response
1	Yes
2	Yes
3	Yes
4	Yes
5	?
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	No Filipino; Yes
13	No Filipino; Yes
14	No, French; Yes
15	No, Spanish; Yes
16	No, Korean; Yes
17	No, Setswana; Yes

APPENDIX H

DATA from History questions on Pretraining questionnaire #2

1. In the past, before you made an oral presentation, did you feel anxious?
2. In the past, when you were presenting, did you feel anxious?
3. How long after you have successfully completed your presentation do you notice that your anxiety is gone?

Student Number	Response
1	Yes; Yes; 1 Min.
2	Yes; Yes; 15-20 mins.
3	Yes; Yes; 1 min.
4	Yes; Yes; 2 mins.
5	Almost Always; At times; is it is successful, usually after the first sentence
6	Yes; Yes; 1-2 mins.
7	Yes; Off & On; ?
8	No; Yes; 5 mins.
9	Yes; Yes; 10 mins.
10	Yes, always have butterflies; At the beginning; Anxiety leaves as I get into the presentation
11	Yes; Some - usually it was a blur; 10 mins
12	Yes; Yes; after several few mins.
13	Yes; Yes; 1 min
14	Yes; Yes; 3 years ago several mins
15	Yes; Yes; 15 min
16	Yes; Yes; 10 mins
17	Yes; Yes, usually when I felt that I was losing track of what I wanted to say; 5

mins. later when the attentions of the audience was focused on the subsequent speaker

APPENDIX I

DATA from Posttraining questionnaire

#1 Did you use this technique before you started to write up your presentation?

#1a. If so, how did you feel this time as compared to the first presentation when thinking about this upcoming presentation?

#1b. If so, did your preparation time, effort, organization, confidence differ from the first presentation in this course?

Student Number	Response
1	Yes; I felt more comfortable during the preparation stage; Preparation time was less than the first presentation (because I felt I did not need to rehearse the speech as many times as before)
2	Yes; More comfortable and at ease, however was not sure it this was because I was more comfortable with the audience; No, except I visioned myself more
3	Yes; More nervous because I knew my last briefing intimately, this one required research; Yes
4	Yes; More relaxed - not so nervous; My confidence was greater but I did the same for preparation effort, etc.
5	?
6	Yes; Relaxed; Yes, prep time was shorter, confidence was greater
7	Somewhat; Was actually more comfortable than usual; Less time rehearsing, fewer notes
8	Yes; A little more focused, took less breaks; Yes
9	Yes; More relaxed and confident; Yes, confidence was up but prep time, effort, and organization was way down
10	Yes; The NLP techniques greatly reduced the level of anxiety I felt during the presentation; My confidence was much greater this time, I still put in the same amount of preparation
11	Yes; Much more relaxed; Only confidence

- 12 Yes; More confident; Yes, I organized my
topic and selected something that could be
applicable in future career.
- 13 Yes; More relaxed; Yes
- 14 No; I was aware of the critics of my first
presentation and I tried to improve my
presentation
- 15 Yes; Less nervous; Yes
- 16 ?; I was more comfortable; Yes
- 17 Yes; The technique tended to give me an
illusion that I was employing a method
which overcomes anxiety; Yes, there is a
great deal of improvement

APPENDIX J

DATA from Pretraining questionnaire #2

#4 What made you anxious?

Student Number	Response
1	Concerned about audience's interest
2	Concerned my topic would not be interesting. Fear my voice would be monotonous
3	During my presentation my anxiousness probably dropped 75% once I got the first line of the speech out of my mouth
4	Thinking I might loose my train of thought or place on my notes
5	Couldn't follow notes, Not completely fluent with topic, Worried about mistakes, Time sensitive
6	The time limit
7	Performance, Acceptance, Self conscious, focus on internal feelings
8	Getting out of sync and losing my place
9	Waiting for the second half of class to start the briefings
10	Fear of speaking in front of an audience
11	Worrying about rushing
12	Talking in public
13	My topic is foreign to most
14	To meet expectation of audience
15	Because I'm shy person
16	Pronunciation, clear speaking, grammar
17	The thought of communicating in front of an audience whose mother tongue was English. It was as though I was being evaluated on how well I could speak English not the content of the presentation

APPENDIX K

DATA from Posttraining questionnaire

#5 What were some of your major concerns about making this presentation?

Student Number	Response
1	Maneuvering slides on projector
2	Making it natural and smooth
3	I was concerned about time
4	Trying not to just read a script but make the presentation
5	?
6	Time - both prep and actual performance
7	Getting nervous to the point of forgetting my lines
8	Going over time
9	I didn't prepare adequately on the topic
10	I had too many other outside distractions
11	Having a well flowing presentation
12	Wasn't sure where brief was going
13	That the audience know a general idea about the subject, so I selected a specific topic
14	Timing and limited vocabulary
15	To make the presentation interesting
16	My nervous that make me make a lot of mistakes
17	Organizing, learning, thinking, clear speaking
18	Mastery of content and relevant use of concept

APPENDIX L
FOLLOW UP INTERVIEW

NAME:

1. Do you feel that the NLP that was taught to you in MN3333 was useful in reducing your anxiety of making an oral presentation before a group?
2. Have you used this NLP technique prior to making oral presentations in other classes?
3. Do you feel that using this technique has helped you by reducing the amount of anxiety you feel before making these oral presentations?
4. Do you have some recommendations as to how the training of this technique could be improved?
5. Do you believe you will be using this technique later in your career and that it will help in your career?
6. Do you recommend that this technique be taught to other students in later classes of MN3333?
7. Do you have any suggestions for improvement in the way or the timing in which the technique was taught?
8. Do you have any suggestions about the questionnaires?

APPENDIX M
EVALUATION CRITERIA

NAME _____ DATE _____

VOICE

Tone Range	Narrow	Medium	Wide
Volume Range	Narrow	Medium	Wide
Timbre	Raspy	Medium	Smooth
Pace	Irregular	Medium	Even
Speed	Slow(K)	Medium(A)	Fast(V)
Enunciation	Unclear	Medium	Clear & Crisp
Project-Voice	Short range	Medium	Long Range
Apparent source	mouth/nose	above larynx	below larynx

FACE

Lips	Lined	Medium	Smooth
Lips	Thin	Medium	Full
Cheeks	Tight	Medium	Flexible/soft
Eye-direction	Mostly away to audience from	Random?	Mostly toward
Skin-color-tone	Pale	Medium	Dark/Flushed
Throat-muscles	Tight	Medium	Soft/flexible

POSTURE

Head-Angle	marked tilt	small tilt	erect/no tilt
Shoulders	marked nonerect	medium	erect/easy
Back	marked nonerect	medium	erect/easy
arms	stiff	medium	flexible

legs & feet

BREATHING

Location	top-of-chest	mid-chest	lower-chest
Speed	fast	medium	slow
Pace	irregular	medium	even

MOVEMENT

Flow	Jerky	medium	Smooth
Extent	Close	Medium	Large
Amount	Great	Medium	Little/none
Extra Noise	Too much	Medium	Little/none

PLATFORM TECHNIQUES

Notes	Reading	Partly reading	Little reading
Facing Audience	Partially away/rear	Mostly to front	almost entirely toward audience
Pacing Platform	Much	Medium	Little/none

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